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**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF NEW JERSEY**

WANGS ALLIANCE CORPORATION  
d/b/a WAC LIGHTING CO.,

Plaintiff,

v.

CAST LIGHTING LLC,

Defendant.

Case No: 2:20-cv-3710-MCA-MAH

**WANGS ALLIANCE CORPORATION'S  
OPENING CLAIM CONSTRUCTION BRIEF**

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Pursuant to L. Pat. R. 4.5 and the Court’s Scheduling Order (ECF 17, ¶15), Plaintiff Wangs Alliance Corporation d/b/a WAC Lighting (“WAC”) submits its opening claim construction brief.

## **I. INTRODUCTION**

The ‘101 patent is generally directed to user-adjustable, waterproof exterior light fixtures. Ex. 1 (“‘101 Patent’”<sup>1</sup>) at 1:27-55 (“Background”). In general terms, exterior fixtures may be deployed in a range of outdoor settings and serve a range of needs and applications – *e.g.*, wider or narrower beam angles, aimed in different directions, at different light intensities, etc. *Id.* at 1:28-32. Furthermore, exterior fixtures are subject to exposure to the elements, including water, dirt, heat/cold, and corrosion. *Id.* at 1:40-44.

Historically, outdoor lights were adjusted in the field by an installer partially disassembling the fixture during installation and adjusting the necessary components, creating an opportunity for contaminants to be introduced into the fixture and otherwise compromising the integrity of the fixture. *Id.*

The ‘101 Patent describes a novel set of watertight, user-adjustable LED lights employing on-board dimming controls that obviate the need for an installer

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<sup>1</sup> U.S. Patent 10,571,101. All exhibits are attached to the Declaration of Timothy R. Shannon in Support of Wang’s Alliance Corporation’s Opening Claim Construction Brief (“Shannon Decl.”).

and disassembly, all while withstanding outdoor conditions. *Id.* at 1:59-2:11. In particular, the ‘101 Patent claims particular configurations of components that resolve many of the problems associated with prior art fixtures. The claimed fixture includes a housing, an onboard dimming control, a light-emitting diode (“LED”), a driver (a circuit that powers the LED), water seals and an internal insulating layer that, collectively, protect all of the components from the elements and allow the user to adjust the output of the fixture (*i.e.*, make it dimmer or brighter) as well as other parameters (*e.g.*, direction of the light) in the field without endangering the fixture’s integrity.

The ‘101 Patent, in short, reflects a clever set of solutions to existing operational and environmental challenges; the Court’s claim constructions should reflect the full scope of those inventions. WAC’s proposed constructions do that, hewing closely to the claim language while preserving the claims’ full scope. CAST’s proposed constructions, by comparison, artificially narrow the claims, import limitations from the specification, attempt to refer claim construction questions to the jury, and (in one case) erase the distinction between terms. The Court should preserve the patent’s full scope.

## **II. LEGAL STANDARDS**

Claim construction is a matter of law determined by the Court. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), *aff’d*, 517

U.S. 370 (1996). Claim construction begins with the language of the claim and asks “how a person of ordinary skill in the art understands a claim term.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). “[I]n interpreting an asserted claim, the court should look first to the intrinsic evidence of record, *i.e.*, the patent itself, including the claims, the specification and, if in evidence, the prosecution history. Such intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language.” *Liquid Dynamics Corp. v. Vaughan Co., Inc.*, 355 F.3d 1361, 1367 (Fed. Cir. 2004). Intrinsic evidence is particularly important because “the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Phillips*, 415 F.3d at 1313.

In addition to intrinsic evidence, a court may rely on extrinsic evidence, such as dictionaries or expert testimony, as a less important source of evidence to provide background on the technology at issue, to explain how an invention works, or to explain the meaning of a common term as it would have been understood by a person of ordinary skill in the art at the time of the invention. *See Phillips*, 415 F.3d at 1317-18.

The purpose of claim construction is to “determine the meaning and scope of the patent claims asserted to be infringed.” *O2 Micro Int’l. Ltd. v. Beyond*

*Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008) (quoting *Markman*, 52 F.3d at 976); *see also Abbott Labs. v. Sandoz, Inc.*, 544 F.3d 1341, 1360 (Fed. Cir. 2008) (“claims are construed as an aid to the decision-maker, by restating the claims in non-technical terms”). “When the parties present a fundamental dispute regarding the scope of a claim term, it is the court’s duty to resolve it.” *O2 Micro*, 521 F.3d at 1362.

### III. CLAIM CONSTRUCTION OF THE ‘101 PATENT

#### A. “driver housing”

WAC’s Proposed Construction	CAST’s Proposed Construction
an enclosure that contains the LED driver assembly and may include an enclosure cap	an enclosure that contains the LED driver assembly

The parties’ dispute with respect to the term “driver housing” is whether the driver housing may include an enclosure cap (WAC’s position) or not (CAST’s position).<sup>2</sup> The parties agree that a “driver housing” means “an enclosure that contains an LED driver assembly” but CAST nonetheless quietly seeks to narrow the claims to encompass only enclosures without caps. This is not a rhetorical disagreement. It is a fundamental dispute over a claim construction rooted in

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<sup>2</sup> For the sake of brevity WAC has proposed the phrase “enclosure cap” in its proposed construction instead of longer phrase, “a driver housing enclosure cap,” used elsewhere in the claims. WAC believes the shorter phrase is more palatable to a fact finder, but WAC is generally agnostic as to whether the construction of this term should include the longer phrase “a driver housing enclosure cap.”



CAST's non-infringement position. While CAST's proposed construction does not address the dispute – presumably to preserve it for the jury – it must be, as a matter of law, resolved by the Court at the *Markman* stage. The intrinsic record dictates that the term “driver housing” be given its full scope, encompassing enclosures both with and without caps.

We begin with the claim language. ‘101 Patent at 50:15-52:43; *Phillips*, 415 F.3d at 1314. The two-word phrase, “driver housing,” conveys the notion that the housing must be capable of hosting a driver (described later in the claim as a LED driver assembly), *id.* at 50:19, but neither word limits the housing's physical configuration. Neither word, for example, indicates that the housing must be made of a single, unbroken piece of material. By way of analogy: a residential home may be made up of various walls, windows, doors, roof sections, etc. yet constitute a single “housing;” a cage with a door is a “housing” for a canary; a two-piece hinged case “houses” eyeglasses. The word, “housing,” is not restricted. Nor do the other features recited in independent claims 1 and 11 address the presence, absence, or possibility of an enclosure cap.<sup>3</sup>

Claim 18, however, does address an enclosure cap. Claim 18 - which

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<sup>3</sup> The housing must simply have an upper portion, *id.* at 50:34, a lower portion, *id.* at 50:40, an opening for the dimmer control shaft, *id.* at 50:19, 50:29. None of these conditions require or prohibit an enclosure cap.

depends from claim 1 - states:

The LED lighting device of claim 1, wherein said driver housing further ***includes a driver housing enclosure cap*** attached to the lower portion of the driver housing, said driver housing enclosure cap ***being a detachable bottom wall of*** said driver housing.

*Id.* at 52:27-31 (emphasis added). That is, claim 18 covers an LED lighting device as set forth in claim 1 that affirmatively *does* include an enclosure cap, one that is deemed a detachable bottom wall of the driver housing of Claim 1 (“*said driver housing*”). *Id.* (emphasis added).

This is powerful – indeed, dispositive – evidence that the term “driver housing,” as it appears in the independent claims, must include the broader scope (with or without a cap) to encompass the narrower scope in the dependent claim 18 (requiring an enclosure cap which is explicitly part of the “driver housing”). *See generally Phillips*, 415 F.3d at 1314 (other claims can be a “valuable sources of enlightenment as to the meaning of a claim term.”); *Gillette Co. v. Energizer Holdings, Inc.*, 405 F.3d 1367, 1373 (Fed. Cir. 2005) (looking to dependent claim to construe terms in independent claim). It is axiomatic that an independent claim must be broad enough to cover the scope of all the claims dependent on it. *Alcon Research, Ltd. v. Apotex Inc.*, 687 F.3d 1362, 1367 (Fed. Cir. 2012) (“if claim 2 covers the range from 0.0001% w/v–5% w/v, claim 1 must cover at least that range.”); *Intamin Ltd. v. Magnetar Techs., Corp.*, 483 F.3d 1328, 1335 (Fed. Cir.

2007) (“An independent claim impliedly embraces more subject matter than its narrower dependent claim.”); *AK Steel Corp. v. Sollac & Ugine*, 344 F.3d 1234, 1242 (Fed. Cir. 2003) (similar); 35 U.S.C. § 112(d) (“a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed”).

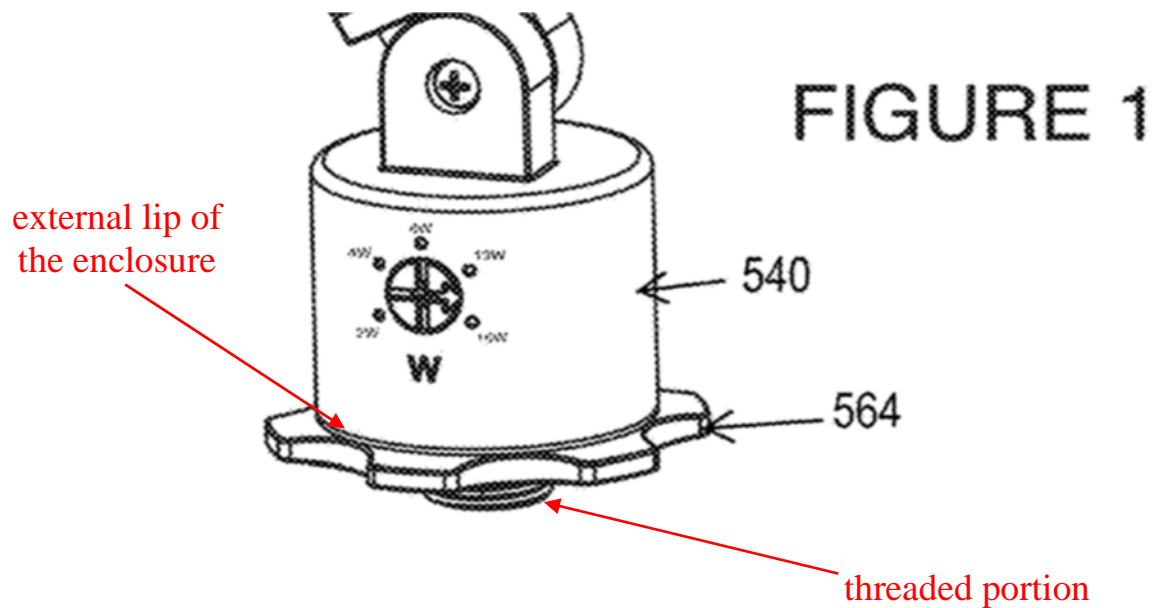
Simply put, the limitation in dependent claim 18 is presumptively subsumed within the scope of the preceding independent claim. *See id.* Claim 1, on which claim 18 depends, must be broad enough to include driver housings both with and without an enclosure cap. *See id.* Put differently, if the term “driver housing” prohibited or categorically could not include an enclosure cap, claim 18 would be a nullity. Such an outcome would be wrong as a matter of law. *See id.*; *Curtiss-Wright Flow Control Corp. v. Velan, Inc.*, 438 F.3d 1374, 1380 (Fed. Cir. 2006). This alone should be sufficient for the Court to adopt WAC’s construction.

The specification offers more evidence that the driver housing may include an enclosure cap. The specification discloses different configurations of a driver housing (item 540) and the enclosure cap (item 560) with a threaded shaft (item 561) extending from the bottom of the enclosure cap. ‘101 Patent at 19:23-39. 25:32-37; Fig. 6B. In one embodiment, the threaded shaft of the enclosure cap (and therefore the enclosure cap as well) are described as part of the driver housing itself. In referring to Figure 1, the specification notes that the “electrical driver

enclosure 540 is water tight and protects the components housed in the enclosure 540 from both dirt and water.” *Id.* at 5:66-6:1. In describing the lower portion of enclosure 540, the specification states that

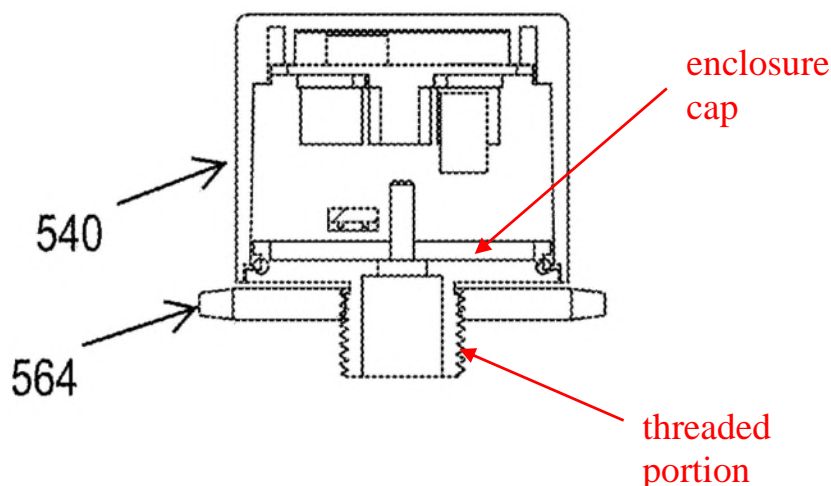
locking nut 564 can be used to secure the fixture to an electrical box after *the threaded portion of the enclosure 540* is extended through a hole in the electrical box being used to mount the light fixture 100.”

*Id.* at 6:1-6 (emphasis added). Figure 1 (excerpted and annotated below) illustrates the point:

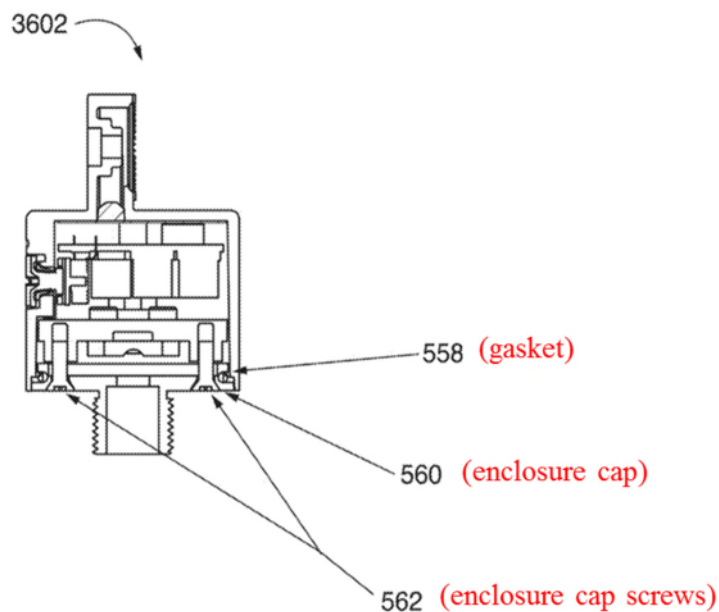


Because in this embodiment the “threaded portion” (a portion of the enclosure cap) is explicitly part of the driver housing (“enclosure 540”), so is the entire enclosure cap.

Another embodiment depicted in Figure 18 (excerpted and annotated below, showing the cross section of the drive housing 540) also shows the enclosure cap as part of the assembled driver housing 540.



The specification elsewhere similarly describes the diver housing as including the enclosure cap. Figure 36, diagram 3602 (excerpted and annotated below) “illustrates a cross sectional view of the driver housing 540 when it is assembled with the enclosure cap screwed on and it is housing the LED driver and other components.” *Id.* at 26:11-14.



*Id.* at Fig. 36 (annotations added). The fact that the enclosure cap is a discrete,

separately numbered, component does not change the analysis. The specification describes the driver housing as including more than one discrete component. *Id.* at 26:11-14 (“assembled” driver housing includes enclosure cap). Separate numbering similarly does not necessarily mean that discrete components are not part of a bigger whole.<sup>4</sup>

In sum, the specification reinforces what the claims require: that the “driver housing” may be a multi-component enclosure that includes an enclosure cap. Claim 1 addresses both configurations ( housings with and without caps) while claim 18 is directed to a housing that must include a cap.

CAST’s argument to the contrary fails and invites error. Not only does CAST fail to account for the full scope of the term, claim 18, and the above disclosures in the specification, it leaves unresolved a fundamental interpretive question (presumably in the hope of handing the dispute to the jury).

Specifically, in response to WAC’s contention identifying the enclosure cap of CAST’s accused product as a “wall of the driver housing,” [REDACTED]

[REDACTED]

[REDACTED]

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<sup>4</sup> To illustrate the point, Figure 6B separately numbers two portions of the driver housing: the upper portion (540B) and the base portion (540A). *See id.* Fig. 6B, 20:62-64. While these portions are separately numbered, both are indisputably part of the claimed “driver housing.” *See id.*

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[REDACTED]<sup>6</sup> *Id.* Thus, CAST’s non-infringement argument raises a claim construction dispute: a disagreement over whether the scope of the term “driver housing” categorically excludes an “enclosure cap.” Rather than acknowledging the issue in its proposed construction, however, CAST apparently hopes to leave this question of claim scope to the jury.

That would be improper. A dispute over the scope of a claim term is a question of law for the Court, to be resolved during claim construction. *O2 Micro*, 521 F.3d at 1362 (“When the parties present a fundamental dispute regarding the

<sup>5</sup> CAST’s non-infringement contentions are addressed only for context and to explain the need for construction. *See Wilson Sporting Goods Co. v. Hillerich & Bradsby Co.*, 442 F.3d 1322, 1326-27 (Fed. Cir. 2006) (“While a trial court should certainly not prejudge the ultimate infringement analysis by construing claims with an aim to include or exclude an accused product or process, knowledge of that product or process provides meaningful context for ... claim construction.”). We will address their substantive wrongness elsewhere.

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scope of a claim term, it is the court’s duty to resolve it.”). Where, as here, there is a dispute over the scope of a claim term – whether the term may encompass a feature – that dispute is properly resolved here and now. *Id.*<sup>7</sup> The Court should address the dispute and resolve it in WAC’s favor.

**B. “sealing between the dimming control and the driver housing”**

WAC’s Proposed Construction	CAST’s Proposed Construction
resisting the passage of dirt and water beyond the circular seal positioned between the dimming control and the driver housing	resists the passage of dirt and water between the dimming control and the driver housing during normal operation of the LED lighting device

The primary dispute between the parties with respect to the term, “sealing between the dimming control and the driver housing,” is whether the term should be given its plain and ordinary meaning (WAC’s position) or appended with language that preemptively addresses extreme environmental conditions not at

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<sup>7</sup> The dispute here is closely analogous to the facts in *O2 Micro*. There, the claim required a circuit to control certain switches “only if said feedback signal is above a predetermined threshold (the ‘only if’ limitation).” *O2 Micro*, 521 F.3d at 1356. The parties disputed whether “only if” allowed for exceptions. *Id.* at 1357. The district court ruled that the term “needs no construction” because it has “a well-understood definition.” *Id.* The Federal Circuit reversed that decision, holding “[t]his dispute over the scope of the asserted claims is a question of law,” and further explaining that “the district court failed to resolve the parties’ dispute because the parties disputed not the *meaning* of the words themselves, but the *scope* that should be encompassed by this claim language.” *Id.* at 1361. By failing to construe the meaning of the disputed term, the district court in *O2 Micro* let the parties present the legal claim construction arguments to the jury, which was a legal error. *Id.* at 1362. The Federal Circuit remanded for the lower court to construe the scope of the disputed term. *Id.* at 1362-3.



issue in this case (CAST's position). The parties agree that "sealing" means resisting (rather than absolutely preventing) the passage of water and dirt.<sup>8</sup> They further agree that a person of ordinary skill would bring that understanding to the claim. Yet CAST advocates appending the term with redundant and confusing language ("during normal operation of the LED lighting device") that poorly captures the idea they admit that everyone understands.

We begin with the claim language. '101 Patent at 50:15-52:43; *Phillips*, 415 F.3d at 1314. The term "sealing between . . ." appears twice in the claims, in claims 1 and 11. The full text of the claim element is as follows:

a dimming control including a shaft, said shaft extending through the hole in the center of said circular seal and said dimming control opening in the wall of the driver housing and being in physical contact with the rotatable control of the resistor component, said circular seal ***sealing*** between the dimming control and the driver housing;

*Id.* at 50:27-33 (claim 1) (emphasis added). *See id.* at 51:25-31 (claim 11) (same).

The claim sets forth, in relevant part, a general topological relationship among the circular seal, the dimming control, and the driver housing. As important, it identifies through the verb "sealing" the function the circular seal must perform: resisting the passage of things beyond itself ("said circular seal sealing").

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<sup>8</sup> WAC proposes adopting the same gerund form (resisting) as the claim term. While this would be tidier grammatically than CAST's proposal ("resists"), the parties' proposals are not substantively different on this point.

The specification then clarifies, and the parties agree, that the seal is sealing against dirt and water. “While the embodiments describe the sealing of the system to prevent the intrusion of water, they also prevent in some embodiments the intrusion of dirt and/or other liquids. This is accomplished . . . through the use of several layers of seals which in some embodiments include gaskets and O-rings and potting in order to seal the LED light base assembly from water intrusion.” *Id.* at 19:55-62. In this instance, the sealing occurs at the circular seal; it blocks passage of water and dirt so that they may not reach inner electrical components (*e.g.* driver assembly). *Id.*; *see* Figs. 1, 3, 6B, and 35.

WAC’s proposed construction unpacks the claim language, clarifying that the claim requires the resistance to the dirt and water to occur at the circular seal, which provides a coherent explanation for the fact-finder. *See Sport Dimension, Inc. v. Coleman Co.*, 820 F.3d 1316, 1320 (Fed. Cir. 2016) (“A district court may use claim construction to help guide the fact finder through issues that bear on claim scope.”).

CAST, by contrast, insists on doing more: adding the phrase, “during normal operation of the LED lighting device.” This is unnecessary and unhelpful. Terms are to be construed from the perspective of a person of ordinary skill in the art (“POSITA”). *See, e.g., Phillips*, 415 F.3d at 1313. POSITAs bring with them “an understanding of [a term’s] meaning in the field.” *Id.* (internal quotations and

citations omitted). A term's ordinary "meaning in the field" would contemplate normal operation. *Id.* Further, the parties both acknowledge that a POSITA would understand "sealing" to require only substantial resistance, not absolute water tightness under extreme conditions. In its PGR Petition, CAST has admitted that "[a] POSITA would understand [the term] not in absolutes, but in relation to the environmental conditions associated with intended uses of the claimed lighting fixtures," and has therefore proposed no particular claim construction. Ex. 3 (CAST PGR Petition) at 25. The Court should credit CAST's position in the PGR in support of WAC's position here.<sup>9</sup>

CAST's "during normal operation" proposal therefore makes little sense. Under CAST's rationale, the term would require the addition of any number of generic-but-unhelpful phrases: "... while on earth," "... under normal gravity condition," "... during daytime or nighttime."<sup>10</sup> CAST's current proposal adds

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<sup>9</sup> The Court may note that CAST filed its PGR petition (declining to construe the term precisely because a POSITA would understand the term) just one day after filing the L. Pat. R. 4.3 pleading in this case (asking for the "under normal conditions" construction because a POSITA otherwise would *not* understand the term). *Compare* ECF 35 (L. Pat. R. 4.3 Joint Statement) (filed on Nov. 23, 2020) with Ex. 3 at 108 (filed on Nov. 25, 2020). The inconsistency is striking.

<sup>10</sup> Further, these phrases should be added to any number of terms. Take, for example, "circular seal." Under CAST's rationale, the parties should clarify the claimed seal is only circular in shape "under normal operation," presumably to make clear that even though the seal could be deformed under extreme circumstances (*e.g.*, if the fixture were crushed by a hydraulic press) that does not

precisely such surplusage, a limitation already understood by a POSITA and agreed by the parties. Moreover, this inherently ambiguous surplusage may confuse the fact-finder, upending the entire purpose of construing this term. While a POSITA may understand the bounds of “normal operation” in the context of the ‘101 Patent, a lay person (*i.e.* a juror) may not. The Court should reject this unnecessary annotation and adopt WAC’s construction instead.

**C. “provides a water tight seal”**

WAC’s Proposed Construction	CAST’s Proposed Construction
prevents the passage of water	prevents the passage of water during normal operation of the LED lighting device

The parties’ dispute concerning the term, “prevents the passage of water,” is the same as for the “sealing between” limitation addressed above, that is, whether to insert an unnecessary and inherently ambiguous “during normal operation of the LED lighting device” limitation into the claims (CAST’s position) or not (WAC’s position). WAC therefore incorporates here its argument above. The Court should adopt WAC’s proposed construction.

**D. “insulating layer of insulating material”**

WAC’s Proposed Construction	CAST’s Proposed Construction
a single thickness of material that provides heat, electricity or water insulation	a thickness of material that provides heat insulation

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cause the seal to fall outside the scope of the claims. That is, of course, true, but it needs no clarification.

The primary dispute between the parties with respect to the term, “insulating layer of insulating material,” is whether the term should encompass the full range of insulation types taught by the intrinsic record – *i.e.*, against heat, water, or electricity (WAC’s position) – or be limited to only one type of insulation, heat, cherry-picked from one part of the specification (CAST’s position).

We begin with the claim language. ‘101 Patent at 50:15-52:43. The term, “insulating layer of insulating material,” appears in claims 1 and 11. *Id.* at 50:42-45, 51:40-42. The only accompanying limitation recited in those claims is positional; the layer must be positioned between two things (bottom surface and driver assembly). The claims do not define or limit the relevant types of “insulating” (*i.e.*, whether the layer is insulating the electronic components from a potentially-electrically-conductive bottom surface, keeping out moisture, or providing thermal insulation). *Id.* Further, the claim language generally concerns electrical matters (driver, resistor, dimming, wire) and moisture control (circular seal, sealing, water tight), suggesting the insulating layer plays some role in at least electrical and/or moisture management. The term also appears in dependent claims 2 and 12. *See id.* at 50:48-52, 52:8-10. Neither purports to limit the term.

The specification is similarly broad in its treatment of insulating layers. Consistent with the stated Background (*id.* at 1:27-55) and Summary (*id.* at 1:59-2:46), several portions of the specification refer to a number and variety of seals,

sealing mechanisms, and protective layers to protect interior electronics, “accomplished . . . through the use of several *layers* of seals which in some embodiments include gaskets and O-rings and potting in order to seal the LED light base assembly from water intrusion.”). *Id.* at 19:55-55:64 (emphasis added).

One such disclosed protective layer is a silicone<sup>11</sup> “potting” material that coats the electronics of the driver assembly to insulate it from intrusion of water. Specifically, the “silicone material . . . acts as a potting material for the driver assembly and . . . stabilizes, secures and waterproofs the driver assembly 554 within the cavity of the driver housing 540.” *Id.* at 25:55-62; *see id.* at 27:39-49 (potting provides “waterproofing of said driver assembly”); 33:59-34:3 (potting “provides a water tight seal”). Because the specification teaches of waterproofing the “driver assembly” with potting, it follows that in those embodiments the potting fully encapsulates the driver assembly. *See id.*; *see also id.* at 33:59-34:3 (“the driver assembly 2336 being potted, *e.g.*, *set into*, the glue to provide a water tight seal”) (emphasis added). Further, that is the nature of

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<sup>11</sup> Silicone is a polymer commonly used for thermal, electrical, and water insulation. *See, e.g.*, Ex. 4 (“Silicones are used in . . . thermal and electrical insulation.”); “Silicone can be used as a basic sealant against water and air penetration.”).

“potting.”<sup>12</sup>

This potting of the driver assembly, “within the cavity,” *id.* at 25:62, provides electrical insulation as well by preventing water to interfere with the electronics. Electrical “wires” are protected from moisture, *id.* at 33:63-66, and “silicone glue seals the electrical connector 2344,” *id.* at 34:27-28. *Cf. id.* at 25:55-62 (“one or more water tight seals which protect some of the electronics”).

In addition to teaching that a layer of insulating material (*e.g.*, silicone) may insulate against water and electricity, the specification also discloses another type of an insulating layer: a film directed to heat insulation. Specifically, the specification identifies an embodiment in which “insulation film 552 provides heat insulation for the driver.” *Id.* at 24:39-49. This layer is itself made of an insulating material. *Id.* at 24:41-42 (“The insulating film 552 in some embodiments is made of VO rated plastic”).

In sum, the specification teaches at least two different insulating layers providing at least three different types of insulation: protection of various components (usually but not always the driver assembly) from unwanted heat, water, and electricity. Neither the claims nor the specification discount or disclaim any of these types of insulation.

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<sup>12</sup> See Ex. 5; *see also* Ex. 6 (Wiley Dictionary) (“Potting: The process of embedding, encasing, or immersing a circuit in a material to protect it from its surrounding environment.”).

WAC's construction is also consistent with and supported by dictionaries and the plain English meaning of these terms. The term "layer" is defined as "a single thickness of a material covering a surface or forming an overlying part or segment"). Ex. 7 (American Heritage Dictionary) ("*Layer*: ... 2. a."). CAST does not appear to dispute this portion of the construction. See Dkt. No. 35, Ex. A at 11, 14.<sup>13</sup> The common definition of insulation – absent any modifier (of which there is none in the claims) – likewise includes the impediment of heat, electricity, sound, and the like. See, e.g., Ex. 8 (American Heritage® Dictionary of the English Language, Fifth Edition (2016)) ("Insulate: To prevent the passage of heat, electricity, or sound into or out of, especially by surrounding or covering with a nonconducting material"). To insulate is to prevent, impede; the term is not limited on its face to a particular type or thing impeded. The claims cover the full range of insulation types, not merely one species.

CAST's position is that the scope of the term "insulating layer" should nonetheless be limited to just one type of insulation, associated with insulating film 552, in one embodiment. ECF 35 (L. Pat. R. 4.3 Statement) at Ex. A at 10 ("heat insulation"). CAST's proposed construction is a textbook example of reading a

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<sup>13</sup> WAC includes the modifier "single" to connote the unitary nature of a layer, but the same concept is implied by the use of the article "an" and the singular "thickness" in CAST's proposed construction and the singular "said insulating layer" elsewhere in the claims.



limitation from an embodiment into the claim. This is categorically prohibited. “A court may not read into a claim a limitation from a preferred embodiment, if that limitation is not present in the claim itself.” *Bayer AG v. Biovail Corp.*, 279 F.3d 1340, 1348 (Fed. Cir. 2002); *Phillips*, 415 F.3d at 1320 (“one of the cardinal sins of patent law — reading a limitation from the written description into the claims”); *Innova/Pure Water, Inc. v. Safari Water Filtration Sys.*, 381 F.3d 1111, 1117 (Fed. Cir. 2004) (“particular embodiments appearing in the written description will not be used to limit claim language that has broader effect.”).

Even if CAST were permitted to restrict claim terms to perceived limits found in one embodiment (it is not), CAST’s attempt fails because the claim term “insulating layer” is different from the specification’s term, “insulating film.” The latter was the subject of a separate patent. *See, e.g.*, Ex. 9 (‘832 Patent) at Claims. Here, WAC sought and obtained claims concerning “layer,” a different term with a different scope.<sup>14</sup> Distinct terms are presumed to have distinct meanings. *See, e.g.*,

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<sup>14</sup> In fact, during the prosecution of the ‘101 Patent, in the Reasons for Allowance, the examiner identified by mistake the term, “insulating film,” as a distinguishing feature of the claims over the prior art. *See* Ex. 10 (Reasons for Allowance). The patentee promptly flagged the error, and the Examiner advised the patentee that the record can be clarified by a submission of “Comments” on the Reasons for Allowance. *See* Ex. 11 (Nov. 19, 2019 Interview Summary). The patentee did so, making the record clear that the scope of the claims “should not be interpreted to include (or be limited to) any terms [such as “insulating film”] other than the terms expressly recited in the claims.” *See* Ex. 12 (Jan. 9, 2020 Comments).

*SimpleAir, Inc. v. Sony Ericsson Mobile Commc'ns AB*, 820 F.3d 419, 431 (Fed. Cir. 2016).

The Court should adopt WAC's proposed construction because it is true to the intrinsic record and consistent with the law.

**E. "connected"**

WAC's Proposed Construction	CAST's Proposed Construction
connected physically	connected electrically

The parties dispute whether "connected" refers to a physical connection (WAC's position) or merely an electrical connection (CAST's position).<sup>15</sup> That is, the parties dispute whether the Court should preserve the distinction between "connected [physically]" and "coupled [electrically]" (WAC's position) or erase the distinction in the claims (CAST's position) by ignoring the claim text and specification.

We start with the claim language. The term "connected" appears in claim 2 and again in claim 12, both times as part of the same limitation:

said first wire being *connected* to said first side of the  
LED driver circuit board

'101 Patent at 50:50-51; 52:10-11. In both cases, "connected" describes the relationship of two components: a wire and a circuit board. *See id.* Both components are described in terms of their physical existence (rather than their

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<sup>15</sup> Neither party contends the word "connected" itself requires further explanation.

function or operation); they can be manipulated and arranged. There is no mention of which voltage or current is sent, what signal is processed, etc. “Connected” thus connotes physical manipulation, not circuit function. Further, Claims 2 and 12 specify *where* the first wire lands: on the “first side” of the circuit board. *Id.* at 50:50-51; 52:10-11. The “first side” is a physical location on the board. If the location is defined in physical terms, so too the connection is located in physical terms.

The patentee’s use of “connected [physically]” in claims 2 and 12 also comports with general rules of claim drafting. Claim 1 requires that the driver assembly merely be “coupled” to the LED light source; that is, the driver supplies electricity to the LED but the route of that delivery is left variable, broad. Claims 2 and 12 narrow the invention to require the electricity flow through a wire placed at a particular location, “connected” to the first side of the board. This is a “further limitation” of the wiring described in claim 1. *See* 35 U.S.C. § 112(d); *Phillips*, 415 F.3d at 1314 (other claims can be a “valuable sources of enlightenment as to the meaning of a claim term.”); *Intamin Ltd. v. Magnetar Techs., Corp.*, 483 F.3d 1328, 1335 (Fed. Cir. 2007) (“An independent claim impliedly embraces more subject matter than its narrower dependent claim.”).

Moreover, claim construction convention dictates that “coupled” and “connected” in the claims have distinct meanings. The presumption is that two

claim terms cannot fully overlap. *See, e.g., Bd. of Regents of the Univ. of Tex. Sys. v. BENQ Am. Corp.*, 533 F.3d 1362, 1371 (Fed.Cir.2008); *Randall May Int’l, Inc. v. DEG Music Prods, Inc.*, 378 F. App’x 989, 998 (Fed. Cir. 2010) (a claim term “must be considered meaningful”); *see also Cablestrand Corp. v. Wallshein*, 29 F.3d 644 (Fed. Cir. 1994). The parties here already agreed on the broad meaning of “coupled [electrically].” ECF 35 (L. Pat. R. 4.3 Joint Statement), at 2.

“Connected” therefore must be presumed not to have the same scope as “coupled.” WAC’s proposed construction honors this principle: while “coupled” describes an electrical relationship, “connected” refers to a physical relationship. The two different terms have two distinct meanings.

The specification also uses “connected” to refer to a physical connection. The wire shown to be the claimed “first wire” is described as “connected *on one end* to the LED driver circuit ... [and] connected *on other end[sic]* to the light source of the fixture which is an LED.” *Id.* at 19:46-49 (emphasis added). The references to “ends” of the wire, and what component sits at each “end,” further illustrates the physical delineation of the connection. *Id.* As in the claims, the term “connected” is often used in tandem with other physical features. *See, e.g., id.* at 10:41 (“through which wires pass and are connected”), *id.* at 11:54-55 (“The LED light source is connected to wires [] which extend through an opening in the bottom portion of the fixture main body”). The specification is referring to the

physical passage/placement/location of the wires.

Other uses of “connected” in the specification underscore the point. The specification describes the “tilting mechanism” as being “connected” to the main body of the fixture. *Id.* at 20:13-16. Similarly, the driver housing is described as “connected” to the dimmer control knob as well as the tilting mechanism. *Id.* at 20:59-61. The specification goes on to describe the “LED flood light assembly” as “connected” to the tilting mechanism; the connection is physical. *Id.* at 29:5-9. In each instance, the components are tangible/mechanical, the described connection is physical, not electrical.

CAST’s argument to the contrary is at odds with the weight of the intrinsic record and invites legal error. CAST urges the Court to construe both “connected” and “coupled” so that an electrical connection by itself satisfies both limitations. Reading the claims to erase the distinction between two separate terms is broadly disfavored. *See Bd. of Regents of the Univ. of Tex. Sys.*, 533 F.3d at 1371. The specification also indicates that the two terms are understood to have different meanings. *Id.* at 29:61-64 (describing wires 578 as either “connected *or coupled* to the LED light source.”) (emphasis added).

More problematic, construing “connected” as requiring only an electrical connection would effectively read out the “first side” limitation in claims 2 and 12. If “connected” can be satisfied by mere electrical communion, then it is irrelevant

to which side of the circuit board the wire is connected – the wire would be “connected [electrically]” to the circuit board either way. CAST’s reading of “connected” would render “first side” in claims 2 and 12 meaningless, providing locational detail for a term that (CAST argues) has no locational meaning. This is legally improper. *See Randall*, 378 F. App’x at 998 (“[t]he district court’s elision of the claim limitation ... is legal error”).

Furthermore, CAST has quietly conceded this very point in its PGR petition. There, in discussing its primary prior art reference (the “BL9” product), CAST admits that the BL9 “does not meet [the ‘connected’] limitations” and “the driver wires of the BL9 are connected to the second side of the circuit board, not the first side.” Ex. 3 at 44, 55. Electricity flows on both sides of the circuit board of the BL9’s driver, evidenced by there being electrical components on both sides of the circuit board. Under CAST’s proposed construction here (“connected electrically”) the physical location of the wires should not matter: the first wire would be electrically connected to the circuit board either way. Yet, CAST admits that the physical placement of the wires means that the BL9 does not meet that limitation in claims 2 and 12, *i.e.*, that it is the *physical* connection that matters.

The Court should adopt WAC’s proposed construction of “connected physically.”

**F. “covers”**

WAC’s Proposed Construction	CAST’s Proposed Construction
extends over	extends over

Since filing their L. Pat. R. 4.3 Joint Statement, the parties have resolved their dispute concerning the construction of “covers.” Both parties agree that the term should be construed to mean “extends over.”

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Respectfully submitted,

s/ Jason B. Lattimore

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**CERTIFICATE OF SERVICE**

I hereby certify that I caused a copy of this document to be filed in accordance with the Court's procedures through the CM/ECF system, to be sent electronically to the registered participants, and paper copies to be sent to those indicated as nonregistered participants.

Dated: December 21, 2020

s/ Jason B. Lattimore  
Jason B. Lattimore